tion of the input object relative to the light-diffusive screen based on an amount of parallax separation of the input object in the matched set of images.

10. The interface system of claim 9, wherein the plurality of cameras comprises a plurality of camera pairs, each of the plurality of camera pairs being configured to concurrently receive images of different respective portions of the light-diffusive screen.

11. The interface system of claim 1, further comprising at least one Lambertian surface configured to diffusely reflect the illumination from the at least one light source to the first side of the light-diffusive screen.

12. A method of providing device inputs, the method comprising:

illuminating a first side of a light-diffusive screen with at least one light source;

providing simulated inputs in a foreground of a second side of the light-diffusive screen via gestures associated with an input object, the second side being opposite the first side of the light-diffusive screen;

generating a first plurality of images and a second plurality of images associated with the input object substantially concurrently based on a brightness contrast between the input object and the second side of the light-diffusive screen;

determining a plurality of three-dimensional physical locations of the input object based on a relative separation of the input object in the first plurality of images relative to the second plurality of images;

determining if changes in the plurality of three-dimensional physical locations of the input object correspond to any of a plurality of predefined gestures; and

providing at least one device input based on a given one of the plurality of predefined gestures upon determining that the changes in the plurality of three-dimensional physical locations of the input object correspond to the given one of the plurality of predefined gestures.

13. The method of claim 12, wherein illuminating the first side of the light-diffusive screen comprises illuminating the first side of the light-diffusive screen with infrared (IR) light, and wherein generating the first and second plurality of images comprises generating a first and second plurality of silhouette images of the input object relative to diffused IR light emitted from the second side of the light-diffusive screen.

14. The method of claim 12, wherein generating the first and second plurality of images associated with the input object comprises generating a matched pair of images associated with the input object, and wherein determining the plurality of three-dimensional physical locations of the input

object comprises determining a plurality of three-dimensional physical locations of at least one end-point associated with the input object.

15. The method of claim 12, further comprising displaying visual content on the light-diffusive screen, wherein providing simulated inputs comprises providing the gestures in the foreground of the second side of the light-diffusive screen as interaction with the visual content.

16. The method of claim 15, wherein displaying the visual content comprises projecting the visual content onto the first side of the light-diffusive screen.

17. The method of claim 16, wherein projecting the visual content further comprises concurrently emitting substantially unfiltered infrared (IR) light from a projector to the first side of the light-diffusive screen.

18. The method of claim 16, further comprising substantially combining light emitted from the at least one light source and the visual content substantially on-axis via a beamsplitter.

19. A gesture recognition interface system comprising:

means for substantially diffusing infrared (IR) illumination provided from at least one light source;

means for generating a first plurality of silhouette images and a second plurality of silhouette images of the input object relative to the diffused illumination, the first and second plurality of images forming a plurality of matched pairs of silhouette images of the input object;

means for generating two-dimensional location information associated with at least one feature of the input object for each of the first plurality of images and the second plurality of images;

means for interpolating three-dimensional location information associated with the input object based on the two-dimensional location information associated with the at least one feature of the input object for each of the plurality of matched pairs of images of the input object;

means for translating changes in the three-dimensional location information associated with at least one feature of the input object to a given input gesture; and

means for providing device inputs based on matching the given input gesture with one of a plurality of predefined gestures.

20. The interface system of claim 19, further comprising means for displaying visual content on the means for diffusing, the given input gesture being interactive with the visual content.

21. The interface system of claim 20, wherein the means for displaying the visual content comprises means for emitting the IR illumination.

* * * * *